

Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-72. (Canceled)

73. (Currently amended) A sensor ~~according to claim 63, comprising a sensor element, wherein the sensor element comprises one or more sensing moieties and one or more signaling moieties,~~
wherein the sensing moieties are polypeptides or polynucleotides,
wherein the signaling moieties are polypeptides,
wherein each sensing moiety has one or more states indicative of a target analyte,
wherein the state or a change in the state of one or more sensing moieties is transduced to one or more signaling moieties, whereby one or more of the signaling moieties alone or in combination engender production of a detectable signal,
wherein at least one signaling moiety comprises a methyl-accepting chemosensory receptor or a portion thereof,
wherein the detectable signal is qualitatively or quantitatively indicative of one or more of:
the absence of the target analyte below a threshold,
the presence of the target analyte above a threshold,
the amount of the target analyte,
a change in the absence of the target analyte below a threshold,
a change in the presence of target the analyte above a threshold, or
a change in the amount of the target analyte; and
wherein the state of one or more sensing moieties is transduced to one or more signaling entities, wherein the sensing moieties and the signaling moieties are part of the same molecule or multimolecular complex.